



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2018-0598; FRL-9993-83-Region 4]

Air Plan Approval; NC: Revision to I/M Program &

Update to Charlotte Maintenance Plan for the 2008 8-Hour Ozone NAAQS

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a State Implementation Plan (SIP) revision submitted by the State of North Carolina through a letter dated July 25, 2018, through the North Carolina Department of Environmental Quality (DEQ), Division of Air Quality (DAQ), primarily for the purpose of revising the model year coverage for vehicles in the 22 counties subject to North Carolina's expanded inspection and maintenance (I/M) program, which was previously approved into the SIP, in part, for use as a component of the State's Nitrogen Oxides (NO_x) Budget and Allowance Trading Program. The SIP revision also includes a demonstration that the requested revision to the vehicle model year coverage will not interfere with attainment or maintenance of any national ambient air quality standard (NAAQS) or with any other applicable requirement of the Clean Air Act (CAA or Act). In addition, North Carolina's July 25, 2018, SIP revision updates the State's maintenance plan and the associated motor vehicle emissions budgets (MVEBs) used for transportation conformity, for the North Carolina portion of the Charlotte-Rock Hill, NC-SC 2008 8-hour ozone nonattainment area (hereafter referred to as the "Charlotte 2008 Ozone Maintenance Area") to reflect the requested change in the vehicle model year coverage for the expanded I/M program. EPA has evaluated whether this SIP revision would interfere with the requirements of the CAA, including

EPA regulations related to statewide NO_x emissions budgets. EPA is proposing to determine that North Carolina's July 25, 2018, SIP revision is consistent with the applicable provisions of the CAA.

DATES: Written comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R04-OAR-2018-0598 at <http://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Kelly Sheckler, Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division (formerly the Air, Pesticides and Toxics Management Division), U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. The telephone number is (404) 562-9222. Ms. Sheckler can also be reached via electronic mail at sheckler.kelly@epa.gov.

SUPPLEMENTARY INFORMATION:

I. What is Being Proposed?

In response to a North Carolina legislative act signed by the Governor on May 4, 2017, that changed the State's I/M requirements for the 22 counties subject to the State's expanded I/M program,¹ DAQ provided a SIP revision through a letter dated July 25, 2018,² seeking to have several of these changes incorporated into the North Carolina SIP. Primarily, North Carolina's July 25, 2018, SIP revision makes substantive changes to the applicability section of North Carolina's SIP-approved expanded I/M program found within 15A North Carolina Administrative Code (NCAC) 02D .1000 (Motor Vehicle Emission Control Standard).³ Specifically, the July 25, 2018, SIP revision modifies Section .1002 by changing, for applicability purposes, the vehicle model year coverage for the 22 counties subject to the expanded I/M program from a specific year-based timeframe for coverage (*i.e.*, beginning in 1996) to a rolling 20-year timeframe for coverage.⁴ More precisely, the revision being proposed changes the applicability of the expanded I/M program to: (i) a vehicle with a model year within

¹ Under provisions of the State legislation, Session Law 2017-10, Senate Bill 131, the changes to North Carolina's I/M requirements for the 22 counties is not effective until the later of the following dates: October 1, 2017, or the first day of a month that is 60 days after the Secretary of the DEQ certifies that EPA has approved the SIP revision. The 22 counties are: Alamance, Buncombe, Cabarrus, Cumberland, Davidson, Durham, Forsyth, Franklin, Gaston, Guilford, Iredell, Johnston, Lee, Lincoln, Mecklenburg, New Hanover, Onslow, Randolph, Rockingham, Rowan, Union and Wake. See clarification letter dated August 31, 2018, from North Carolina in the docket for this proposed rulemaking.

² EPA received North Carolina's SIP submittal on July 31, 2018.

³ In the table of North Carolina regulations federally-approved into the SIP at 40 CFR 52.1770(c), 15A NCAC 02D is referred to as "Subchapter 2D Air Pollution Control Requirements."

⁴ By its terms, Section .1002(d) makes the 22 counties identified in North Carolina General Statute 143-215.107A subject to the I/M program's emission control standards. These same 22 counties are the counties currently subject to North Carolina's SIP-approved I/M program which was expanded from 9 counties to 48 counties in 2002 (and is referred to as the "expanded" I/M program). See 83 FR 48383 (September 25, 2018) (removing 26 of the 48 counties from North Carolina's SIP-approved expanded I/M program and leaving the 22 counties identified in footnote 1 above as remaining). In addition, changes to Section .1002 also include language making the effective date of the change to the vehicle model year coverage correspond to the effective date set out in North Carolina Session Law 2017-10 referred to in footnote 1 above (*i.e.*, on the first day of the month that is 60 days after EPA approves the change into the SIP).

20 years of the current year and older than the three most recent model years; or (ii) a vehicle with a model year within 20 years of the current year and has 70,000 miles or more on its odometer. Previously, the program applied to: (i) a 1996 or later model year vehicle and older than the three most recent model years; or (ii) a 1996 or later model year vehicle and has 70,000 miles or more on its odometer. It is estimated that this proposed change will result in a small increase (less than one percent) in nitrogen oxides (NO_x) and volatile organic compound (VOC) emissions. Additionally, the July 25, 2018, SIP revision makes formatting or other minor clarifying changes to several related SIP-approved I/M sections: .1001 (Purpose), .1003 (Definitions), and .1005 (On-Board Diagnostic Standards).⁵ All of these proposed changes are discussed more fully in Section III below.

A majority (14) of the 22 counties impacted by this proposed rulemaking were included in an expanded I/M program which was approved into the North Carolina SIP in 2002, for the sole purpose of using NO_x emissions reductions generated by this expanded program as a component of the State's NO_x Budget and Allowance Trading Program. *See* 67 FR 66056 (October 30, 2002). The purpose of the 2002 I/M SIP revision was to allow North Carolina to gain credits from the I/M emissions reductions from the expanded list of counties as part of its NO_x Budget and Allowance Trading Program. *See* 67 FR 66056. North Carolina's NO_x Budget and Allowance Trading Program was submitted to EPA for approval in response to EPA's regulation entitled "Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone," otherwise known as the NO_x SIP Call.

⁵ Sections .1006 and .1008 were also readopted without substantive changes. However, these rules are not in North Carolina's SIP and North Carolina is not requesting that EPA approve these rules into the SIP.

For the reasons discussed more fully in Section III, below, EPA is proposing to find that the changes to the vehicle model year coverage in Section .1002 for the 22 counties subject to North Carolina's SIP-approved expanded I/M program will not interfere with North Carolina's obligations under the NOx SIP Call. A number of federal rules and SIP-approved state regulations promulgated and implemented subsequent to the 2002 approval of North Carolina's NOx SIP Call submission have created significant NOx emissions reductions in North Carolina such that the small increase in NOx emissions (and the associated small decrease in emissions reductions credits generated from the counties and available for use) does not impact the ability of North Carolina to meet its NOx SIP Call Statewide NOx emissions budget. North Carolina has provided an analysis which supports this proposed finding, and which discusses some of these federal rules and SIP-approved State regulations.⁶

In addition, North Carolina's SIP revision evaluates the impact that the change to the vehicle model year coverage for the 22 counties would have on the State's ability to attain and maintain the NAAQS. The SIP revision contains a technical demonstration with revised emissions calculations showing that the change to Section .1002 for vehicle model year coverage for the expanded I/M program in the 22 counties will not interfere with North Carolina's attainment or maintenance of any NAAQS or with any other applicable requirement of the CAA. Based on this demonstration, EPA is proposing to find that North Carolina's revised emissions calculations demonstrate that the change to the expanded I/M program for the 22 counties will not interfere with State's ability to attain or maintain any NAAQS. With regard to the related expanded I/M program provisions at Sections .1001, .1002, and .1003, EPA is proposing to find

⁶ See Letter from Michael A. Abraczinskas, Director of the Division of Air Quality for the North Carolina Department of Environmental Quality, dated July 11, 2018. This letter is part of the Docket for this action.

that the changes to those Sections are formatting or clarifying in nature, do not alter the meaning of the Sections, and are thus approvable.

Finally, for 7 of the 22 counties in North Carolina's expanded I/M program, I/M emissions from those counties have been relied on by North Carolina for maintenance of the ozone NAAQS for the Charlotte 2008 Ozone Maintenance Area. Through the July 25, 2018, SIP revision (the subject of this proposed rulemaking), North Carolina provides a maintenance demonstration for the Area that takes into account the small increase in NO_x and VOC emissions estimated to result from the proposed change to the vehicle model year coverage for the expanded I/M program for these counties. As discussed more fully in Sections III d. and e. below, EPA is proposing to find that, after taking into account these estimated small increases in NO_x and VOC emissions, North Carolina has demonstrated continued maintenance for the Charlotte 2008 Ozone Maintenance Area, and, thus, EPA is also proposing to approve the changes to the State's maintenance plan and the associated MVEBs for this Area.

II. What is the Background of North Carolina's SIP-Approved I/M program?

Under sections 182(b)(4), (c) and (d) of the CAA, I/M programs are required for areas that are designated as moderate or above for nonattainment for ozone. As a result, North Carolina has previously submitted, and EPA has previously approved into the SIP (in 1995), a CAA-required I/M program for nine counties.⁷ *See* 60 FR 28720 (June 2, 1995). Subsequently, North Carolina expanded its State I/M program to cover 39 additional counties in order to use

⁷ The nine counties are Cabarrus, Durham, Forsyth, Gaston, Guilford, Mecklenburg, Orange, Union and Wake. *See* 60 FR 28720 (June 2, 1995). However, while Orange County was included in this 1995 submittal and EPA approval, it was not designated as nonattainment for either the ozone or carbon monoxide (CO) NAAQS.

credits from I/M emissions reductions from these additional counties as a component of the State's response to EPA's NO_x SIP Call.⁸

The NO_x SIP Call was designed to mitigate significant transport of NO_x, one of the precursors of ozone. It required 19 states (including North Carolina) and the District of Columbia to meet statewide NO_x emissions budgets during the five-month period from May 1 through September 30, called the ozone season (or control period). EPA approved the expansion of North Carolina's SIP-approved I/M in 2002.

Approval of the I/M revision into the SIP and the amended rules contained therein allowed North Carolina to gain emissions reduction credits ranging from 914 tons in 2004 to 4,385 tons in 2007 and beyond for use in its NO_x emissions budget. These emissions reduction credits were used by the State at the beginning of the NO_x emissions budget program to allow for new growth and to help meet the overall budget cap until the affected stationary sources could install and operate controls needed to meet their emissions allowances. *See* 67 FR 66056. For example, while these credits were primarily used to allow for new growth during initial program implementation, a small portion of the credits (approximately 1,000 tons per ozone season) were also initially used by North Carolina to help meet the Statewide NO_x emissions budget of 165,022 tons per ozone season.⁹ *See* 67 FR 66056; 67 FR 42519, 42522 (June 24, 2002). EPA approved the expanded I/M program into the SIP on October 30, 2002 (67 FR 66056), and approved North Carolina's NO_x SIP Call submittal (*i.e.*, the North Carolina NO_x Budget and Allowance Trading Program) on December 27, 2002. *See* 67 FR 78987. Subsequently, on September 15, 2018, EPA finalized a rulemaking which approved a SIP

⁸ North Carolina Session Law 1999-328, Section 3.1(d) and Section 3.8.

⁹ North Carolina's Statewide NO_x emissions budget is found at 40 CFR 51.121(g)(2)(ii).

revision removing 26 counties from North Carolina's SIP-approved expanded I/M program.¹⁰ See 83 FR 48383. The result of EPA's 2018 final rulemaking is that 22 counties now remain subject to North Carolina's SIP-approved expanded I/M program.

III. What is EPA's Analysis of North Carolina's July 25, 2018, SIP Revision?

A. Changes for Sections .1001, .1003, and .1005

As mentioned above, North Carolina's July 25, 2018, SIP revision makes formatting or other minor clarifying changes to several related SIP-approved I/M sections: .1001 (Purpose), .1003 (Definitions), and .1005 (On-Board Diagnostic Standards). Below is a summary of these changes.

- **.1001 – Purpose:** Changes are formatting in nature. Specifically, North Carolina changes “inspection/maintenance” to “inspection and maintenance”, and also changes “law” to “law.”
- **.1003 – Definitions:** Changes are formatting in nature. Specifically, North Carolina changes “Rules” to “15A NCAC 2D” and removes “of the Section” in two places. North Carolina also changes “Three” to “three”.
- **.1005 – On-Board Diagnostic Standards:** Changes are formatting in nature or minor clarifications that do not alter the meaning or effect of the rule. Specifically, North Carolina changes “Rules” to “15A NCAC 2D” and removes “of the Section” in one place. North Carolina also clarifies paragraphs (d) and (e) of this rule without making substantive changes. In summary, North Carolina changes paragraph (d) to read “Persons performing on-board diagnostics tests shall provide the Division of Air Quality the data required by 40 CFR 51.365,

¹⁰ EPA also approved changes to North Carolina's I/M SIP on November 20, 2014. See 79 FR 69051. Those changes repealed the regulations pertaining to the tail-pipe emissions test because this test was obsolete and replaced it with the on-board diagnostics emissions test.

Data Collection; 40 CFR 51.366, Data Analysis and Reporting; and 40 CFR 51.358 Test Equipment.” from “Persons performing on-board diagnostic tests shall provide the Division of Air Quality data necessary to determine the effectiveness of the on-board diagnostic testing program. The data submitted shall be what is necessary to satisfy 51.358, Test Equipment.” Paragraph (e) is changed from “All reference to federal regulations include subsequent amendments and editions.” to “Federal regulations cited in this Rule are incorporated by reference, including subsequent amendments and editions.”

EPA is proposing to approve the aforementioned changes to Sections .1001, .1003, and .1005 because they are formatting in nature or are minor clarifications that do not change the meaning or effect of these rules.

B. Impact of Section .1002 Changes on the State’s NOx SIP Call obligations

For Section .1002, North Carolina’s July 25, 2018, SIP revision seeks to change the vehicle model year coverage for the 22 counties subject to the North Carolina I/M program requirements contained in the SIP. North Carolina estimates that this change to the vehicle model year coverage will increase NOx emissions from the 22 counties by 311 tons per ozone season (*See* Table 2 below). As noted previously, a subset of the 22 counties (14 counties) were included in the expanded I/M program in order to generate emissions reduction credits for NOx, a small part of which were initially used by the State to meet its Statewide NOx emissions budget. Consequently, some portion of the 311 tons/ozone season NOx emissions increase necessarily results in fewer emissions reductions credit generated and available for use by the State to meet its Statewide NOx emissions budget. However, while fewer emissions reduction credits from the expanded I/M program may be available to North Carolina as a result of the small NOx emissions increase, EPA is proposing to find that any decrease in available emissions

reductions credits from the expanded I/M program will not interfere with the State's obligation under the NOx SIP Call with regards to meeting its Statewide NOx emissions budget. As discussed more fully below, EPA believes this is because, since 2002, significant NOx emissions reductions have otherwise been achieved in North Carolina from implementation of several federal and SIP-approved regulations. For purposes of meeting its Statewide NOx emissions budget, these significant NOx emissions reductions more than offset any small decrease in available emissions reduction credits due to the change to the vehicle model year coverage.

Subsequent to the NOx SIP Call and the 2002 approval of North Carolina's NOx Budget and Allowance Trading Program, a number of federal rules, as well as SIP-approved state regulations have created significant NOx emissions reductions in North Carolina (including ozone season reductions). For stationary sources, including large electricity generating units (EGUs), these federal rules include the Clean Air Interstate Rule (CAIR) in 2005¹¹ and its replacement in 2011, the Cross State Air Pollution Rule (CSAPR).¹² In addition, federal mobile source-related measures include: the Tier 2 vehicle and fuel standards;¹³ nonroad spark ignition

¹¹ CAIR created regional cap-and-trade programs to reduce SO₂ and NOx emissions in 27 eastern states, including North Carolina, that contributed to downwind nonattainment or interfered with maintenance of the 1997 8-hour ozone NAAQS or the 1997 fine particulate matter (PM_{2.5}) NAAQS. CAIR was challenged in federal court and in 2008, the United States Court of Appeals for the District of Columbia (D.C. Circuit) remanded CAIR to EPA without vacatur. *North Carolina v. EPA*, 550 F.3d 1176, 1178 (D.C. Cir. 2008).

¹² In response to the D.C. Circuit's remand of CAIR, EPA promulgated CSAPR to replace CAIR. CSAPR requires 28 eastern states, including North Carolina, to limit their statewide emissions of SO₂ and NOx in order to mitigate transported air pollution impacting other states' ability to attain or maintain four NAAQS: the 1997 ozone NAAQS, the 1997 PM_{2.5} NAAQS, the 2006 24-hour PM_{2.5} NAAQS, and the 2008 8-hour ozone NAAQS. The CSAPR emissions limitations are defined in terms of maximum statewide "budgets" for emissions of annual SO₂ and NOx, and/or ozone-season NOx by each covered state's large EGUs. The CSAPR state budgets are implemented in two phases of generally increasing stringency, with Phase I budgets applying to emissions in 2015 and 2016 and the Phase 2 budgets applying to emissions in 2017 and later years. CSAPR was challenged in the D.C. Circuit, and on August 12, 2012, it was vacated and remanded to EPA. The vacatur was subsequently reversed by the United States Supreme Court on April 29, 2014. *EPA v. EME Homer City Generation, L.P.*, 134 S.Ct. 1584 (2014). This litigation ultimately delayed implementation of CSAPR for three years.

¹³ The Tier 2 standards, begun in 2004, continue to significantly reduce NOx emissions and EPA expects that these standards will reduce NOx emissions from vehicles by approximately 74 percent by 2030 (or nearly 3 million tons

engines and recreational engine standards; heavy-duty gasoline and diesel highway vehicle standards;¹⁴ and large nonroad diesel engine standards.¹⁵ These mobile source measures have resulted in, and continue to result in, large reductions in NO_x emissions over time due to fleet turnover (*i.e.*, the replacement of older vehicles that predate the standards with newer vehicles that meet the standards).

In 2002, North Carolina also enacted and subsequently implemented its Clean Smokestacks Act (CSA), which created system-wide annual emissions caps on actual emissions of NO_x and sulfur dioxide (SO₂) from coal-fired power plants within the State, the first of which became effective in 2007. The CSA required certain coal-fired power plants in North Carolina to significantly reduce annual NO_x emissions by 189,000 tons (or 77 percent) by 2009 (using a 1998 baseline year). This represented about a one-third reduction of the NO_x emissions from all sources in North Carolina. *See* 76 FR 36468, 36470 (June 11, 2011).¹⁶ With the requirement to meet annual emissions caps and disallowing the purchase of NO_x credits to meet the caps, the CSA reduced NO_x emissions beyond the requirements of the NO_x SIP Call even though the Act did not limit emissions only during the ozone season. EPA approved the CSA into North Carolina's SIP on September 26, 2011 (76 FR 59250).

Together, implementation of these federal rules and SIP-approved State regulations have created significant NO_x emissions reductions since North Carolina's NO_x emissions budget was

annually by 2030). *See* 80 FR 44873, 44876 (July 28, 2015) (citing EPA, Regulatory Announcement, EPA 420-F-99-051 (December 1999)).

¹⁴ Also begun in 2004, implementation of this rule is expected to achieve a 95 percent reduction in NO_x emissions from diesel trucks and buses by 2030. *See* 80 FR 44873, 44876 (July 28, 2015).

¹⁵ EPA estimated that compliance with this rule will cut NO_x emissions from non-road diesel engines by up to 90 percent nationwide. *See* 80 FR 44873, 44876 (July 28, 2015).

¹⁶ North Carolina indicates that the utilities have reduced NO_x emissions by 83 percent relative to the 1998 emissions levels. *See* Letter from Michael A. Abraczinskas, Director of the Division of Air Quality for the North Carolina Department of Environmental Quality, dated July 11, 2018.

approved into the SIP in 2002, and for EGUs, have significantly reduced ozone season NO_x emissions well below the original NO_x SIP Call budget. This last point is illustrated in Table 1, which compares the EGU NO_x SIP Call budget to actual emissions in 2007 and 2017. Actual EGU emissions in 2007 and 2017 were 23 percent (7,274 tons) and 60 percent (18,906 tons) below the NO_x SIP Call budget for EGUs, respectively. Notably, the entirety of the emissions reduction credits from the I/M program (and used by the State in its NO_x emissions budget) only totaled 4,385 tons, of which approximately 1,000 tons was initially needed to meet the overall budget.

Table 1. Comparison of Ozone Season NO_x SIP Call Budget to Actual Emissions for EGUs

	2007	2017
NO _x SIP Call Budget, Tons ¹⁷	31,451	31,451
Actual Emissions, Tons	24,177	12,545
Below Budget, Tons	7,274	18,906
Below Budget, Percent	23	60

Table 2 compares the impact of the estimated ozone season NO_x emissions increases due to the proposed change to the vehicle model year coverage for the 22 counties on EGU reductions and NO_x SIP Call I/M reduction credits. Using EPA's Motor Vehicle Emission Simulator (MOVES2014), DAQ estimated that changes to the vehicle model year coverage in the 22 counties will increase ozone season NO_x emissions by 311 tons. As noted above, in 2017, EGU emissions were 18,906 tons (60 percent) below the NO_x SIP Call budget for EGUs. The estimated 311 tons NO_x increase from the proposed change to the vehicle model year coverage in the 22 counties combined with the estimated 611 tons increase in NO_x emissions from the removal of 26 counties from the expanded I/M program (which EPA previously approved in a

¹⁷ From EPA's proposed approval of North Carolina's NO_x SIP Call submission. *See* 67 FR 42519 (June 24, 2002).

separate action published on September 25, 2018) would lower the EGU reduction by less than 5 percent to 17,984 tons below the NOx SIP Call budget for EGUs. Thus, based on this EGU-focused analysis, DAQ concludes that the small ozone season NOx emissions increase associated with the proposed change to the vehicle model year coverage in the 22 counties subject to North Carolina's expanded I/M program has no impact on North Carolina's obligations under the NOx SIP Call to meet its Statewide NOx emissions budget.

Table 2. Impact of NOx Emissions Increases due to Proposed Changes to I/M Program on EGU Reductions and NOx SIP Call I/M Credits

I/M Emissions Increase in 2018, Tons	NOx Emissions
26 Counties	611
22 Counties	311
48 County Total I/M Increase	922
EGU Reduction in 2017 (from Table 1)	18,906
Net EGU Reduction in 2017 including I/M Increase	17,984

Considering the above, EPA is proposing to find that North Carolina's July 25, 2018, SIP revision to change the vehicle model year coverage for the 22 counties subject to the expanded I/M program contained in its SIP (which results in a small increase in NOx emissions and consequentially a small decrease in the amount of emissions reduction credits generated and available for use in the State's NOx emissions budget) will not interfere with the State's obligations under the NOx SIP Call to meet its Statewide NOx emissions budget. Subsequent promulgation and implementation of a number of federal rules and SIP-approved state regulations, and in particular those impacting EGUs, have created significant NOx emissions reductions in the State that are more than sufficient, for purposes of meeting the Statewide NOx emissions budget, to offset this small decrease in available emissions reduction credits.

C. Overall Preliminary Conclusions Regarding North Carolina's Noninterference Analyses

Section 110(l) of the CAA requires that a revision to the SIP not interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 171), or any other applicable requirement of the CAA. EPA evaluates section 110(l) noninterference demonstrations on a case-by-case basis considering the circumstances of each SIP revision. EPA interprets section 110(l) as applying to all NAAQS that are in effect, including those that have been promulgated but for which EPA has not yet made designations. The degree of analysis focused on any NAAQS in a noninterference demonstration varies depending on the nature of the emissions associated with the proposed SIP revision. For I/M SIP revisions, the most relevant pollutants to consider are ozone precursors (*i.e.*, NO_x and VOC) and carbon monoxide (CO). In connection with North Carolina's July 25, 2018, SIP revision, the State submitted a non-interference demonstration which EPA analyzes below.

As mentioned above, in a letter dated July 25, 2018, DAQ submitted a noninterference demonstration to support the State's request to change the vehicle model year coverage for the 22 counties subject to the expanded I/M program to: (i) a vehicle with a model year within 20 years of the current year and older than the three most recent model years; or (ii) a vehicle with a model year within 20 years of the current year and has 70,000 miles or more on its odometer. This demonstration includes an evaluation of the impact that this change would have on North Carolina's ability to attain or maintain any NAAQS in the State. Based on the analysis below, EPA is proposing to find that the change in vehicle model year coverage in the 22 counties subject to the North Carolina expanded I/M program meets the requirements of CAA section 110(l) and will not interfere with attainment or maintenance of any NAAQS in North Carolina.¹⁸

¹⁸ EPA also notes, as a transport-related matter, that on October 26, 2016, the Agency determined through the CSAPR Update (see 81 FR 74504) that North Carolina did not contribute to nonattainment or maintenance issues in

i. Noninterference Analysis for the Ozone NAAQS

On July 18, 1997, EPA promulgated a revised 8-hour ozone standard of 0.08 parts per million (ppm). This standard was more stringent than the 1-hour ozone standard that was promulgated in 1979. On March 12, 2008, EPA revised both the primary and secondary NAAQS for ozone to a level of 0.075 ppm to provide increased protection of public health and the environment. *See* 73 FR 16436 (March 27, 2008). The 2008 8-hour ozone NAAQS retains the same general form and averaging time as the 0.08 ppm NAAQS set in 1997, but is set at a more protective level. Under EPA's regulations at 40 CFR part 50, the 2008 8-hour ozone NAAQS is attained when the 3-year average of the annual fourth highest daily maximum 8-hour average ambient air quality ozone concentrations is less than or equal to 0.075 ppm. *See* 40 CFR 50.15. On October 26, 2015, EPA published a final rule lowering the level of the 8-hour ozone NAAQS to 0.070 ppm. *See* 80 FR 65292.

North Carolina is currently in attainment statewide for all of the ozone NAAQS.¹⁹ Most recently, on November 6, 2017, EPA designated the entire state of North Carolina

downwind states for the 2008 8-hour ozone NAAQS. The 2016 CSAPR Update provides technical and related analysis to assist states with meeting the good neighbor requirements of the CAA for the 2008 ozone NAAQS. Specifically, the CSAPR Update includes projection modeling to determine whether individual states contribute significantly or not to nonattainment or maintenance in other states. On December 9, 2015, North Carolina provided a SIP revision addressing ozone transport requirements for the 2008 8-hour ozone standards and made the determination that the State did not contribute to nonattainment or maintenance issues in any other state. EPA approved North Carolina's submission on October 4, 2017, with the consideration of EPA's modeling conducted for the CSAPR Update. *See* 82 FR 46134. Also, most recently, EPA conducted modeling for the 2015 ozone NAAQS. That modeling preliminarily indicates that North Carolina does not contribute to nonattainment or interfere with maintenance issues in any other state for that standard.

¹⁹ The Charlotte Area was redesignated to attainment for the 1-hour ozone standard on July 5, 1995 (60 FR 34859); redesignated to attainment for the 1997 8-hour ozone standard on December 2, 2013 (78 FR 72036); and was designated to attainment for the 2008 8-hour ozone standard on July 28, 2015 (80 FR 44873). In addition, on December 26, 2007, EPA approved the redesignation to attainment of the Raleigh-Durham-Chapel Hill Area (comprised of a portion of Chatham County, and the entire counties of Durham, Franklin, Johnston, Orange, Person, and Wake) for the 1997 8-hour ozone standard. *See* 72 FR 72948. This approval included approval of a 10-year maintenance plan which demonstrated that the Area would maintain the standard through the year 2017. The Raleigh-Durham-Chapel Hill Area has continued to maintain the 1997 8-hour ozone standard and subsequently was designated as unclassifiable/attainment for the 2008 8-hour ozone standard on December 26, 2007 (72 FR 72948).

attainment/unclassifiable for the 2015 8-hour ozone NAAQS. *See* 82 FR 54232. With regard to the I/M SIP revision, thirteen of the 22 counties where vehicle model year coverage is being revised have ozone monitors. The monitors reflect design values in part per billion (ppb) that meet or are below the 2015 8-hour ozone NAAQS of 70 ppb (see Table 3).

Table 3. Design Values for Counties with Ozone Monitors

Counties Subject to I/M Program Requirement and Vehicle MY Coverage Change That Have Ozone Monitors	Ozone Design Value, ppb (2015 8-hr ozone NAAQS is 70 ppb)	
	2014-2016	2015-2017
Buncombe	63	62
Durham	62	61
Forsyth	68	67
Guilford	65	65
Johnston	65	63
Lee	62	61
Lincoln	67	67
Mecklenburg	70	70
New Hanover	60	58
Rockingham	66	65
Rowan	65	64
Union	68	67
Wake	65	66

DAQ's noninterference analysis compared ozone season day anthropogenic NO_x and VOC emissions for all sectors (point, area, nonroad, on road) for 2018 for the 22 counties subject to North Carolina's expanded I/M program and compared them to the emissions for all sectors because of the changing of the vehicle model year coverage. As mentioned above, the vehicle

and attainment/unclassifiable for the 2015 8-hour ozone standard on November 16, 2017 (82 FR 54232). Further, counties in the Raleigh Area and Greensboro Area were redesignated to attainment for the 1-hour ozone standard on April 18, 1994 (59 FR 18300) and on September 9, 1993 (58 FR 47391), respectively. With regard to the 1997 8-hour ozone standard, the Great Smoky National Park Area was redesignated to attainment on December 7, 2009 (74 FR 63995), and the Rocky Mount Area was redesignated to attainment on November 6, 2006 (71 FR 64891).

model year coverage for the expanded I/M program is currently: (i) a 1996 or later model year vehicle and older than the three most recent model years; or (ii) a 1996 or later model year vehicle and has an odometer reading of 70,000 miles or more. The proposed vehicle model year coverage for the expanded I/M program is: (i) a vehicle with a model year within 20 years of the current year and older than the three most recent model years; or (ii) a vehicle with a model year within 20 years of the current year and has an odometer reading of 70,000 miles or more. For purposes of Tables 4 and 5, the columns titled “I/M”, reflect the current vehicle model year coverage as defined above, and the columns titled “New I/M”, reflect the proposed revision to the vehicle model year coverage as defined above.

DAQ’s noninterference analysis utilized EPA’s MOVES2014 emission modeling system to estimate emissions for mobile sources. For 2018, the NO_x emissions increase resulting from the North Carolina expanded I/M program will be 0.24 tons per day (tpd) or less in each of the 22 counties for which the vehicle model year coverage is being changed. As summarized in Tables 4 and 5, below, the MOVES model predicted emission increases for only on-road vehicles. The results for 2018 show a slight increase in anthropogenic NO_x emissions for each county, as shown in Table 4, ranging from 0.02 to 0.24 tpd. The percent increase in total NO_x emissions for a county ranges from 0.3 percent to 1.5 percent. The total increase in NO_x emissions associated with the vehicle model year coverage change in 2018 for the 22 counties subject to this change is 2.02 tpd²⁰ or 0.94 percent of total man-made emissions (260.95 tpd).

As noted above, DAQ’s noninterference analysis utilized EPA’s MOVES2014 emission modeling system to estimate emissions for mobile sources. The year 2018 was modeled as the

²⁰ 2.02 tpd multiplied by 154 days in the ozone season equals 311 tons per ozone season.

future year. The compliance rate for the expanded I/M program in North Carolina was 96 percent with a 5 percent waiver rate. These mobile source emissions are used as part of the evaluation of the potential impacts to the NAAQS that might result exclusively from changing the vehicle model year coverage for the 22 counties subject to the North Carolina expanded I/M program.

Table 4. Total Anthropogenic NOx Emissions for 2018 for 22 Counties (tpd)

Counties	On-Road			Non-Road		Point		Area		Totals			
	I/M	New I/M	Emission increase	I/M	New I/M	I/M	New I/M	I/M	New I/M	I/M	New I/M	Emissions Increase	Percent Increase
Alamance	3.69	3.77	0.08	1.09	1.09	0.45	0.45	0.59	0.59	5.82	5.90	0.08	1.4
Buncombe	5.54	5.65	0.11	1.71	1.71	4.01	4.01	1.47	1.47	12.73	12.84	0.11	0.9
Cabarrus	3.75	3.82	0.07	1.48	1.48	0.85	0.85	0.45	0.45	6.53	6.60	0.07	1.1
Cumberland	5.45	5.55	0.10	2.69	2.69	1.08	1.08	0.61	0.61	9.83	9.93	0.10	1.0
Davidson	4.12	4.21	0.09	1.52	1.52	3.28	3.28	0.41	0.41	9.33	9.42	0.09	1.0
Durham	4.69	4.79	0.10	2.39	2.39	0.87	0.87	1.02	1.02	8.97	9.07	0.10	1.1
Forsyth	5.68	5.80	0.12	2.03	2.03	1.96	1.96	1.20	1.20	10.87	10.99	0.12	1.1
Franklin	1.33	1.36	0.03	0.36	0.36	0.08	0.08	0.21	0.21	1.98	2.01	0.03	1.5
Gaston	4.63	4.72	0.09	1.49	1.49	25.13	25.13	0.58	0.58	31.83	31.92	0.09	0.3
Guilford	8.43	8.60	0.17	4.95	4.95	1.79	1.79	2.12	2.12	17.29	17.46	0.17	1.0
Iredell	5.09	5.17	0.08	1.35	1.35	5.44	5.44	0.58	0.58	12.46	12.54	0.08	0.6
Johnston	6.37	6.45	0.08	2.09	2.09	0.32	0.32	0.47	0.47	9.25	9.33	0.08	0.9
Lee	1.29	1.31	0.02	0.59	0.59	0.18	0.18	0.18	0.18	2.24	2.26	0.02	0.9
Lincoln	1.98	2.02	0.04	0.65	0.65	0.67	0.67	0.18	0.18	3.48	3.52	0.04	1.1
Mecklenburg	13.40	13.64	0.24	9.92	9.92	9.25	9.25	5.37	5.37	37.94	38.18	0.24	0.6
New Hanover	2.44	2.49	0.05	3.47	3.47	3.76	3.76	0.70	0.70	10.37	10.42	0.05	0.8
Onslow	2.78	2.83	0.05	0.96	0.96	1.54	1.54	0.76	0.76	6.04	6.09	0.05	0.8
Randolph	3.92	4.00	0.08	0.91	0.91	0.17	0.17	0.41	0.41	5.41	5.49	0.08	1.5
Rockingham	2.60	2.67	0.07	0.89	0.89	7.71	7.71	0.31	0.31	11.51	11.58	0.07	0.6
Rowan	3.68	3.76	0.08	1.29	1.29	5.94	5.94	0.43	0.43	11.34	11.42	0.08	0.7
Union	3.62	3.69	0.07	2.70	2.70	0.34	0.34	0.57	0.57	7.23	7.30	0.07	1.0
Wake	12.39	12.59	0.20	7.15	7.15	2.89	2.89	4.02	4.02	26.45	26.65	0.20	0.8
Total	106.87	108.89	2.02	51.68	51.68	77.71	77.71	22.64	22.64	258.9	260.92	2.02	0.94

Table 5. Total Anthropogenic VOC Emissions for 2018 for 22 Counties (tpd)

Counties	On-Road			Non-Road		Point		Area		Totals			
	I/M	New I/M	Emission increase	I/M	New I/M	I/M	New I/M	I/M	New I/M	I/M	New I/M	Emissions Increase	Percent Increase
Alamance	2.60	2.66	0.06	1.37	1.37	1.41	1.41	4.76	4.76	10.14	10.20	0.06	0.6
Buncombe	3.92	4.01	0.09	2.95	2.95	1.49	1.49	8.07	8.07	16.43	16.52	0.09	0.5
Cabarrus	2.74	2.80	0.06	1.14	1.14	0.74	0.74	4.58	4.58	9.20	9.26	0.06	0.7
Cumberland	3.90	3.98	0.08	1.98	1.98	2.24	2.24	6.97	6.97	15.09	15.17	0.08	0.5
Davidson	3.05	3.12	0.07	0.98	0.98	1.29	1.29	5.74	5.74	11.06	11.13	0.07	0.6
Durham	3.24	3.31	0.07	2.03	2.03	0.43	0.43	6.95	6.95	12.65	12.72	0.07	0.6
Forsyth	4.44	4.54	0.10	2.02	2.02	4.01	4.01	9.05	9.05	19.52	19.62	0.10	0.5
Franklin	1.01	1.04	0.03	0.35	0.35	0.18	0.18	2.00	2.00	3.54	3.57	0.03	0.8
Gaston	3.20	3.28	0.08	1.18	1.18	1.45	1.45	5.89	5.89	11.72	11.80	0.08	0.7
Guilford	6.14	6.28	0.14	4.54	4.54	7.42	7.42	15.96	15.96	34.06	34.20	0.14	0.4
Iredell	3.11	3.17	0.06	1.10	1.10	1.76	1.76	5.66	5.66	11.63	11.69	0.06	0.5
Johnston	3.08	3.14	0.06	1.27	1.27	1.45	1.45	5.88	5.88	11.68	11.74	0.06	0.5
Lee	0.98	1.00	0.02	0.36	0.36	1.29	1.29	1.96	1.96	4.59	4.61	0.02	0.4
Lincoln	1.51	1.54	0.03	0.57	0.57	1.22	1.22	2.29	2.29	5.59	5.62	0.03	0.5
Mecklenburg	9.90	10.07	0.17	10.52	10.52	1.83	1.83	22.69	22.69	44.94	45.11	0.17	0.4
New Hanover	2.21	2.25	0.04	2.10	2.10	1.10	1.10	6.15	6.15	11.56	11.60	0.04	0.3
Onslow	2.04	2.08	0.04	1.83	1.83	0.70	0.70	4.69	4.69	9.26	9.30	0.04	0.4
Randolph	2.74	2.81	0.07	0.97	0.97	1.58	1.58	7.10	7.10	12.39	12.46	0.07	0.6
Rockingham	1.94	1.99	0.05	0.75	0.75	2.20	2.20	4.71	4.71	9.60	9.65	0.05	0.5
Rowan	2.63	2.69	0.06	1.10	1.10	5.48	5.48	3.91	3.91	13.12	13.18	0.06	0.5
Union	2.78	2.83	0.05	2.13	2.13	1.03	1.03	6.35	6.35	12.29	12.34	0.05	0.4
Wake	9.66	9.81	0.15	7.66	7.66	1.94	1.94	22.27	22.27	41.53	41.68	0.15	0.4
Total	76.82	78.4	1.58	48.9	48.9	42.24	42.24	163.63	163.63	331.59	333.17	1.58	0.5

The results in Table 5 show that changing the vehicle model year coverage for the 22 counties subject to the expanded I/M program increases anthropogenic VOC emissions for only on-road vehicles ranging from 0.02 tpd to 0.17 tpd. The percent increase in total VOC emissions for each county ranges from 0.3 percent to 0.8 percent. The total increase in VOC emissions associated with changing the vehicle model year coverage for the expanded I/M program in the year 2018 is approximately 1.6 tpd or 0.5 percent of the total man-made emissions (333 tpd).²¹

²¹ When biogenic VOC emissions from natural sources (average of 1,973 tpd during July using EPA's 2011 National Emissions Inventory (NEI v2)) are added to the man-made emissions (333 tpd), the actual VOC emissions increase is only 0.07 percent (1.6/2,305 tpd x 100). This is a very small change that EPA believes will not translate into measurable ground-level ozone concentrations in North Carolina.

As shown in Table 6 below, total NO_x and VOC emissions would increase 2.0 tpd (0.8 percent) and 1.6 tpd (0.5 percent), respectively.

Table 6. Summary of On-Road NO_x and VOC Emissions Increases Associated with Changing Vehicle MY Coverage in 22 Counties Subject to the I/M Program

	NO_x Emissions in 2018	VOC Emissions in 2018
Total On-Road Emissions with Current I/M Program (tpd)	106.9	76.8
Total On-Road Emissions with Revised I/M Program (tpd)	108.9	78.4
Emissions Increases (tpd)	2.0	1.6
Percent Increase: On-road only	1.9	2.1
Percent Increase: Total anthropogenic	0.8	0.5

North Carolina's emissions analysis, as reflected in Tables 4, 5, and 6, above, indicate that only a very small increase in NO_x and VOC emissions (less than one percent overall) is associated with changing the vehicle model year coverage for the 22 counties subject to the expanded I/M program. Based on this, as well as the design values shown in Table 3, above, and EPA's further analysis specific to ozone in relation to the Charlotte 2008 Ozone Maintenance Area as described in section d below, EPA is proposing to find that changing the vehicle model year coverage from a specific year-based date (1996) to a rolling 20-year timeframe for the 22 counties subject to the North Carolina expanded I/M program requirements would not interfere with maintenance of the ozone NAAQS in the State.

ii. Noninterference Analysis for the PM NAAQS

Over the course of several years, EPA has reviewed and revised the PM_{2.5} NAAQS a number of times. On July 16, 1997, EPA established an annual PM_{2.5} NAAQS of 15.0 micrograms per cubic meter (µg/m³), based on a 3-year average of annual mean PM_{2.5} concentrations, and a 24-hour PM_{2.5} NAAQS of 65 µg/m³, based on a 3-year average of the 98th

percentile of 24-hour concentrations. *See* 62 FR 36852 (July 18, 1997). On September 21, 2006, EPA retained the 1997 Annual PM_{2.5} NAAQS of 15.0 µg/m³ but revised the 24-hour PM_{2.5} NAAQS to 35 µg/m³, based again on a 3-year average of the 98th percentile of 24-hour concentrations. *See* 71 FR 61144 (October 17, 2006). On December 14, 2012, EPA retained the 2006 24-hour PM_{2.5} NAAQS of 35 µg/m³ but revised the annual primary PM_{2.5} NAAQS to 12.0 µg/m³, based again on a 3-year average of annual mean PM_{2.5} concentrations. *See* 78 FR 3086 (January 15, 2013).

EPA promulgated designations for the 1997 Annual PM_{2.5} NAAQS on January 5, 2005 (70 FR 944), and April 14, 2005 (70 FR 19844). Of the 22 counties subject to this rulemaking, Catawba, Davidson and Guilford counties were designated nonattainment for the 1997 Annual PM_{2.5} NAAQS. These areas have since been redesignated to attainment for the 1997 Annual PM_{2.5} NAAQS and continue to attain this NAAQS. *See* 76 FR 71452 and 76 FR 71455 (November 18, 2011). On November 13, 2009, and on January 15, 2015, EPA published notices determining that the entire state of North Carolina was unclassifiable/attainment for the 2006 daily PM_{2.5} NAAQS and the 2012 Annual PM_{2.5} NAAQS, respectively. *See* 71 FR 61144 and 78 FR 3086.

In North Carolina's July 25, 2018, SIP revision, the State concluded that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not interfere with attainment or maintenance of the PM_{2.5} NAAQS. The pollution control systems for light-duty gasoline vehicles subject to the expanded I/M program are not designed to reduce emissions for PM_{2.5}; therefore, changing the I/M requirements will not have any impact on ambient concentrations of PM_{2.5}. In addition, MOVES2014 modeling results indicate that changing the vehicle model year coverage for the expanded I/M program would not increase

direct PM_{2.5} emissions. EPA has evaluated the State's analysis and proposes to find that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not interfere with maintenance of the PM_{2.5} NAAQS in the State.

iii. Noninterference Analysis for the 2010 NO₂ NAAQS

The 2010 NO₂ 1-hour standard is set at 100 ppb, based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations. The annual standard of 53 ppb is based on the annual mean concentration. On February 17, 2012, EPA designated all counties in North Carolina as unclassifiable/attainment for the 2010 NO₂ NAAQS. *See* 77 FR 9532.

Based on the technical analysis in North Carolina's July 25, 2018, SIP revision, the projected increase in total anthropogenic NO_x emissions (of which NO₂ is a component) associated with the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program ranges from 0.08 to 0.25 tpd in 2018. All NO₂ monitors in the State are measuring below the annual NO₂ standard, and all near road monitors are measuring well below the 1-hour NO₂ standard. Given the current unclassifiable/attainment designation and the results of North Carolina's emissions analysis which show a de minimis increase in NO_x, EPA proposes to find that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not interfere with maintenance of the 2010 NO₂ NAAQS in the State.

iv. Noninterference Analysis for the CO NAAQS

EPA promulgated the CO NAAQS in 1971 and has retained the standards since its last review in 2011. The primary NAAQS for CO include: (1) an 8-hour standard of 9.0 ppm, measured using the annual second highest 8-hour concentration for two consecutive years as the

design value; and (2) a 1-hour average of 35 ppm, using the second highest 1-hour average within a given year. Eighteen of the 22 counties in North Carolina's expanded I/M program have never been designated nonattainment for the CO NAAQS. Durham, Forsyth, Mecklenburg and Wake counties were all previously designed nonattainment for the CO NAAQS over 20 years ago and have since been redesignated to attainment. Currently, there are two monitors in North Carolina for CO. These monitors are in Mecklenburg and Wake Counties and reflect design values well below both the 8-hour and 1-hour CO NAAQS. The monitoring data in 2017 show an 8-hour design value of 1.3 ppm for the Charlotte Area and 1.2 ppm for the Raleigh-Durham Area – each less than the 9.0 ppm CO NAAQS. For the 1-hour CO NAAQS of 35 ppm, these two monitors have a 1-hour design value of 1.5 ppm for the Charlotte Area and 1.6 ppm for Raleigh-Durham Area in 2017.

In North Carolina's July 25, 2018, SIP revision, the State concluded that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not interfere with attainment or maintenance of the CO NAAQS. MOVES2014 mobile emissions modeling results show a slight increase in CO emissions for each of the 22 counties ranging from 0.21 tpd in Franklin County to 1.85 tpd in Mecklenburg County in 2018. Statewide, the current ambient air quality levels for CO are less than 20 percent of the CO NAAQS. Given how far below the monitoring results are relative to the CO standard, and North Carolina's sustained compliance with the CO NAAQS, EPA does not believe that these slight increases would cause any area in the State to violate the CO NAAQS. For these reasons, EPA proposes to find that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not interfere with maintenance of the CO NAAQS in the State.

v. Noninterference Analysis for the SO₂ NAAQS

On June 22, 2010, EPA revised the 1-hour SO₂ NAAQS to 75 ppb which became effective on August 23, 2010. *See* 75 FR 35520. On August 5, 2013, EPA initially designated nonattainment only in areas with violating 2009-2011 monitoring data. EPA did not designate any county in North Carolina for the 2010 1-hour SO₂ NAAQS as part of the initial designation. *See* 78 FR 47191. On March 2, 2015, a Consent Decree was issued by the United States District Court for the Northern District of California stipulating the time and method for designating the remaining areas in the Country.²² For North Carolina, EPA designated the entire state attainment/unclassifiable for SO₂ (pursuant to a consent decree) on December 21, 2017 (effective April 9, 2018 <https://www.gpo.gov/fdsys/pkg/FR-2018-01-09/pdf/2017-28423.pdf>), except for the following townships/counties: Beaverdam Township (Haywood County); Limestone Township (Buncombe County); and Cunningham Township (Person County). Counties listed above deployed monitors which EPA intends to designate by December 2020. Also, a portion of Brunswick County was designated unclassifiable effective in August 2016.

Based on the technical analysis in North Carolina's July 25, 2018, SIP revision, the State concluded that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not interfere with attainment or maintenance of the SO₂ NAAQS. The pollution control systems for light-duty gasoline vehicles subject to the expanded I/M program are not designed to reduce emissions for SO₂; therefore, changing the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program will not have any impact on ambient concentrations of SO₂. In addition, sulfur content in fuel has been

²² Copy of the Consent Decree- <http://www.epa.gov/so2designations/pdfs/201503FinalCourtOrder.pdf>

significantly decreased through EPA's Tier 2 and Tier 3 rulemakings which tightened engine standards and required fuel formulations contain reduced levels of sulfur. *See* 65 FR 6698 (February 10, 2000) and 81 FR 23641 (April 22, 2016). MOVES2014 modeling results indicate that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not increase SO₂ emissions. For these reasons, EPA proposes to find that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not interfere with maintenance of the 2010 SO₂ NAAQS in the State.

vi. Noninterference Analysis for 2008 Lead NAAQS

On November 12, 2008 (73 FR 66964), EPA promulgated a revised primary and secondary lead NAAQS of 0.15 µg/m³. Under EPA's regulations at 40 CFR part 50, the 2008 lead NAAQS are met when the maximum arithmetic 3-month mean concentration for a 3-year period, as determined in accordance with Appendix R of 40 CFR part 50, is less than or equal to 0.15 µg/m³. *See* 40 CFR 50.16. On November 8, 2011, EPA designated the entire State of North Carolina as unclassifiable/attainment for that NAAQS. *See* 76 FR 72907. North Carolina's ambient lead levels have remained well below the standard. The pollution control systems for light-duty gasoline vehicles subject to the I/M program are not designed to reduce emissions for lead; therefore, changing the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program will not have any impact on ambient concentrations of lead. MOVES 2014 modeling results indicate that this change would not increase lead emissions. For these reasons, EPA proposes to find that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program would not interfere with maintenance of the 2008 lead NAAQS in the State.

D. Revision to the 2008 8-Hour Ozone NAAQS Maintenance Plan for the North Carolina Portion of the Charlotte 2008 Ozone Maintenance Area

In its July 25, 2018, SIP revision, North Carolina updated the mobile emissions for the Charlotte 2008 Ozone Maintenance Area's plan, including the MVEBs, to reflect the change to the vehicle model year coverage in North Carolina's expanded I/M program. The emissions inventory updates were done using the latest planning assumptions and are detailed on pages 31-42 of the State's submittal titled "Revised Maintenance Plan for the Charlotte-Gastonia-Salisbury, North Carolina 2008 8-Hour Ozone Marginal Nonattainment Area," dated July 25, 2018, which is included in the docket for this proposed rulemaking.

North Carolina revised the emissions forecasts and the MVEBs for 2026 to account for the small increase in NO_x and VOC emissions associated with the change in vehicle model year coverage for the relevant counties in North Carolina's expanded I/M program. The total sum of the man-made VOC and NO_x emissions for the North Carolina portion of the Charlotte 2008 Ozone Maintenance Area are shown in Tables 7 and 8. Maintenance is demonstrated when the emissions are less than the baseline year. The baseline year is 2014. As shown in Table 7, for NO_x, all the years are under the baseline of 130.18 tons per summer day (tpsd), with the final year of 2026 emissions at 60.28 tpsd. Additionally, as shown in Table 8, for VOC, all years are under the baseline of 113.12 tpsd, with the final year of 2026 emissions at 95.99 tpsd.

Table 7. Total Man-Made NO_x Emissions for North Carolina Portion of the Charlotte Maintenance Area (tpsd)

County	2014	2015	2018	2022	2026
Cabarrus	11.49	10.73	6.73	5.44	4.44
Gaston	27.89	27.62	12.03	6.41	7.87
Iredell	6.86	6.49	5.41	4.68	4.16
Lincoln	4.36	4.71	6.41	4.29	2.34
Mecklenburg	56.71	52.97	39.16	33.52	31.33
Rowan	11.74	11.31	8.28	7.01	6.10
Union	11.13	10.36	6.63	5.09	4.05
Total	130.18	124.19	84.69	66.44	60.28

Table 8. Total Man-Made VOC Emissions for North Carolina Portion of the Charlotte Maintenance Area (tpsd)

County	2014	2015	2018	2022	2026
Cabarrus	11.50	11.27	9.51	9.23	9.02
Gaston	12.96	12.74	11.53	10.94	10.74
Iredell	6.33	6.22	5.29	5.11	4.97
Lincoln	6.55	6.47	4.81	4.66	4.51
Mecklenburg	50.10	49.16	45.31	44.47	31.33
Rowan	12.59	12.38	12.47	12.19	6.10
Union	13.09	12.85	10.91	10.68	4.05
Total	113.12	111.09	99.82	97.28	95.99

EPA is proposing to approve the updated emissions for the 2008 8-hour ozone maintenance plan for the North Carolina portion of the Charlotte 2008 Ozone Maintenance Area because it demonstrates that the projected emissions inventories for 2026 (the final year of the maintenance plan), 10 years beyond the re-designation year, as well as the interim years, are all less than the base year emissions inventory.

E. Motor Vehicle Emissions Budgets

As stated above, North Carolina's July 25, 2018, SIP revision also changed the MVEBs for the 2008 8-hour ozone NAAQS for the North Carolina portion of the Charlotte 2008 Ozone

Maintenance Area for transportation conformity purposes.²³ North Carolina originally established MVEBs for the North Carolina portion of the Charlotte 2008 Ozone Maintenance Area for the 2008 8-hour ozone standard in its redesignation and maintenance SIP. EPA approved these MVEBs on July 28, 2015 (effective date August 27, 2015). *See* 80 FR 44873. Subsequently, North Carolina updated the emissions projections in North Carolina's maintenance plan for the Charlotte 2008 Ozone Maintenance Area and updated the MVEBs as well to account for the State's request for changes to the Reid Vapor Pressure (RVP) requirements for the Area. On July 28, 2015, EPA approved this revision to the maintenance plan and the MVEBs. *See* 80 FR 44868. North Carolina's July 25, 2018, SIP revision updates the Charlotte 2008 8-hour ozone maintenance plan to account for the change in the vehicle model year coverage for the relevant counties in the expanded I/M program, and consequently updates the MVEBs for transportation conformity.

For transportation conformity purposes, the MVEBs in North Carolina are expressed in kilograms per summer day (kpsd). This is because the kpsd is used as the specific unit for all MOVES2014 model outputs. The emission values in kpsd were divided by 907.1847 to convert them to units of tpsd. Table 9 shows the highway mobile NO_x and VOC summer day emissions for the counties in the Charlotte 2008 Ozone Maintenance Area expressed in tpsd and the corresponding kpsd values for the base year 2014 and the last year of the maintenance plan 2026.

²³ The Federal Transportation Conformity Rule (40 CFR 93.100-129) provides the process by which the air quality impact of transportation plans, transportation improvement programs, and projects are analyzed. The agency preparing transportation plans (projections of twenty or more years), transportation improvement programs (TIP) (projections of at least four years), or approving a transportation project must analyze the emissions expected from such a proposal in accordance with the Transportation Conformity Rule. For the purposes of transportation conformity, the MVEB is essentially a cap on the total emissions allocated to on-road vehicles. The projected regional emissions calculated based on a transportation plan, TIP, or project, may not exceed the MVEBs or cap contained in the appropriate SIP. Emissions in years for which no MVEBs are specifically established must be less than or equal to the MVEB established for the most recent prior year.

Table 10 shows the maintenance level projections and the calculation of the safety margin for the Charlotte 2008 Ozone Maintenance Area.

Table 9. Highway Mobile Source NO_x and VOC Summer Day Emissions for North Carolina Portion of 2008 8-Hour Ozone Charlotte Maintenance Area

County	2014 NO _x		2014 VOC		2026 NO _x		2026 VOC	
	tpsd	kgsd	tpsd	kgsd	tpsd	kgsd	tpsd	kgsd
Cabarrus	6.60	5,989	4.15	3,765	2.00	1,810	2.19	1,982
Gaston	8.11	7,357	4.61	4,179	2.12	1,924	1.86	1,689
Iredell	3.36	3,045	1.95	1,768	1.00	903	0.88	801
Lincoln	3.00	2,723	1.91	1,737	0.83	757	0.86	779
Mecklenburg	26.99	24,488	14.40	13,060	7.17	6,501	6.98	6,334
Rowan	6.42	5,825	3.76	3,408	1.73	1,571	1.53	1,389
Union	5.67	5,146	3.54	3,210	1.62	1,466	1.68	1,520
Total	60.15	54,572	34.32	31,127	16.47	14,932	15.98	14,492

Table 10. Maintenance Demonstration for North Carolina Portion of the Charlotte Area

Year	NO _x (tpsd)	VOC (tpsd)
2014	130.18	113.12
2015	124.19	111.09
2018	84.69	99.82
2022	66.44	97.28
2026	60.28	95.99
Difference from 2014 to 2026 (safety margin)	69.90	17.13

North Carolina chose to apply a percentage of the safety margin to each county in the Charlotte 2008 Ozone Maintenance Area for the year 2026 only.²⁴

²⁴ A safety margin is the difference between the attainment levels of emissions from all sources (i.e., point, area, on-road and non-road) and the projected level of emissions from all source categories. The state may choose to allocate some of the safety margin to the MVEB for transportation conformity purposes, so long as the total level of emissions from all source categories remains below the attainment level of emissions. According to Section 93.118 of the transportation conformity rule, a maintenance plan must contain a MVEB for the last year of the maintenance plan (in this case 2026). North Carolina allocated a portion of the safety margin for 2026 to the MVEBs to allow for unanticipated growth in vehicle miles traveled.

Tables 11 through 13 provide the updated NO_x and VOC MVEBs with the added safety margins in kgsd for transportation conformity purposes for 2014 and 2026. These MVEBs were developed using a five-step approach that included the percentage each county was below the 2008 8-hour ozone NAAQS, rapid growth in on-road vehicle emissions anticipated and potential increases in vehicle miles traveled, and vehicle mix and age distribution. In updating the MVEBs, North Carolina ensured that the sum of the safety margin applied to the MVEBs do not exceed 50 percent of the available safety margin. North Carolina has established sub-area budgets for each metropolitan planning organization within the Charlotte 2008 Ozone Maintenance Area.

Table 11. Cabarrus Rowan Metropolitan Planning Organization (CRMPO) MVEBs in 2014 and 2026 (kgsd)

	2014 NO_x	2014 VOC	2026 NO_x	2026 VOC
Base Emissions	11,814	7,173	3,381	3,371
Safety margin allocated to MVEB	-	-	846	843
Conformity MVEB	11,814	7,173	4,227	4,214

Table 12. Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) MVEBs in 2014 and 2026 (kgsd)

	2014 NO_x	2014 VOC	2026 NO_x	2026 VOC
Base Emissions	10,079	5,916	2,681	2,468
Safety margin allocated to MVEB	-	-	551	510
Conformity MVEB	10,079	5,916	3,232	2,978

Table 13. Charlotte Regional Transportation Planning Organization (CRTPO) – Rocky River Rural Planning Organization (RRRPO) MVEBs in 2014 and 2026 (kgsd)

	2014 NO_x	2014 VOC	2026 NO_x	2026 VOC
Base Emissions	32,679	18,038	8,870	8,655
Safety margin allocated to MVEB	-	-	1,596	1,557
Conformity MVEB	32,679	18,038	10,466	10,212

A total of 2,993 kgsd (3.30 tpsd) of the 2026 NO_x safety margin is added to the MVEB for the entire Charlotte 2008 Ozone Maintenance Area. A total of 2,910 kgsd (3.21 tpsd) of the 2026 VOC safety margin is added to the MVEB for the entire Charlotte 2008 Ozone Maintenance Area. The revised available safety margin, which considers the portion of the safety margin applied to the new MVEB for each project year, is listed below in Table 14.

Table 14. New Safety Margin for the North Carolina Portion of the Charlotte 2008 8-hour Ozone Maintenance Area (tpsd)

Year	NO_x	VOC
2014	N/A	N/A
2015	-5.99	-2.03
2018	-45.49	-13.30
2022	-63.74	-15.84
2026	-66.60	-13.92

Through this rulemaking, EPA is proposing to approve the updated sub-area MVEBs for NO_x and VOC for 2014 and 2026 for the North Carolina portion of Charlotte 2008 Ozone Maintenance Area because EPA has determined that the Area maintains the 2008 8-hour ozone NAAQS with the emissions at the levels of the budgets. Once the subarea MVEBs for the North Carolina portion of Charlotte 2008 Ozone Maintenance Area are approved or found adequate (whichever is completed first), they must be used for future conformity determinations. After thorough review, EPA has determined that the budgets meet the adequacy criteria, as outlined in 40 CFR 93.118(e)(4), and is proposing to approve the budgets because they are consistent with maintenance of the 2008 8-hour ozone NAAQS through 2026.

IV. Incorporation by Reference

In this document, EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with the requirements of 1 CFR 51.5, EPA is proposing to incorporate by reference the following rules under Subchapter 2D of the North Carolina SIP: Section .1001, *Purpose*; Section .1002, *Applicability*; Section .1003, *Definitions*; and Section .1005, *On-Board Diagnostic Standards*. The changes to Sections .1001, .1003, and .1005 are formatting or clarifying in nature. The change to Section .1002 modifies the vehicle model year coverage requirements for the 22 counties in North Carolina's expanded I/M program. EPA has made, and will continue to make, these materials generally available through www.regulations.gov and/or at the EPA Region 4 office (please contact the person identified in the "For Further Information Contact" section of this preamble for more information).

V. Proposed Action

For the reasons explained above in Section III of this proposed rulemaking, EPA is proposing to approve North Carolina's July 25, 2018, SIP revision. Specifically, EPA is proposing to approve the formatting and clarifying changes to Subchapter 2D, Sections .1001, .1003 and .1005. EPA is also proposing to approve changes to Section .1002 relating to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program (Alamance, Buncombe, Cabarrus, Cumberland, Davidson, Durham, Forsyth, Franklin, Gaston, Guilford, Iredell, Johnston, Lee, Lincoln, Mecklenburg, New Hanover, Onslow, Randolph, Rockingham, Rowan, Union and Wake). Additionally, EPA is proposing to find that the changes to the vehicle model year coverage for the 22 counties in North Carolina's expanded I/M program will not interfere with the State's obligations under the NO_x SIP Call to meet its Statewide NO_x emissions budget and will not interfere with continued attainment or

maintenance of any applicable NAAQS or with any other applicable requirement of the CAA, and that North Carolina has satisfied the requirements of section 110(l) of the CAA. Finally, EPA is proposing to approve the updated emissions for the 2008 8-hour ozone maintenance plan, including the updated MVEBs, for the Charlotte 2008 Ozone Maintenance Area.

VI. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submittal that complies with the provisions of the Act and applicable federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this proposed action merely proposes to approve state law as meeting Federal requirements and does not propose to impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);

- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, October 7, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000) nor will it impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, and Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: May 6, 2019.

Mary S. Walker,
Acting Regional Administrator,
Region 4.

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